April 19, 2011

Mr. Joseph Kimbrell
New Mexico Environment Department
Operating Permit Program
Air Quality Bureau
1301 Siler Road, Building B
Santa Fe, NM 87507

**Subject:** 20.2.72.219.B.1 NMAC Technical Revision Permit Application for Permit 0063-M6R1, PNM's San Juan Generating Station (SJGS)

Dear Mr. Kimbrell:

Attached please find two (2) hardcopies and two (2) electronic (CD) copies of the 20.2.72.219.B.1 NMAC Technical Revision Permit Application for Permit 0063-M6R1, PNM's San Juan Generating Station (SJGS). This letter is attached to the application copy that has the original notarized signature page (Section 23).

This permit application has been prepared to support NMED's State Implementation Plan (SIP) to satisfy the requirements in Section 110(a)(2)(D)(i)(II) of the Clean Air Act with respect to visibility. The proposed permit change supports the SIP by reducing SJGS $SO_2$ emissions from an annual average of approximately 0.18 lb/mmBtu (i.e., equivalent to an annual average of 90 percent $SO_2$ control efficiency) to 0.15 lb/mmBtu on a 30-day rolling average. This results in a $SO_2$ reduction in allowable emissions of 3,670 tons per year.

The following are PNMs suggested permit condition language and methodology for demonstrating compliance with monitoring, recordkeeping, and reporting for the proposed $SO_2$ emission limits from the four coal-fired boilers located at SJGS, Units 1-4 (Emission Sources E301, E302, E303, and E304).

## Proposed Emission Limits

### $SO_2$ 30-day Rolling Average

San Juan Generating Station shall not cause to be discharged into the atmosphere any gases that contain $SO_2$ in excess of 0.15 lb/MMBtu heat input determined on a 30-day rolling average basis from combustion boilers units 1-4 (Emission Sources E301, E302, E303, and E304).

Compliance with the 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limitation is determined by calculating at the end of each rolling 30 successive boiler operating days the arithmetic average of all hourly emission rates for $SO_2$, except for data obtained during emergency conditions. Hourly emission rates will only be determined based on valid $SO_2$ CEMs data for any hour where fuel is combusted in the unit. No missing hour substitute data will be used in determining compliance with the proposed 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limit.

*"Boiler operating day"* means a 24-hour period between 12 midnight and the following midnight (MST) during which any fuel is combusted at any time in the steam-generating unit.

### Annual Limit

Compliance with the proposed 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limitation, will in effect, reduce the annual $SO_2$ tons per year (tpy) emission rate presently listed in NSR Permit 0063-M6R1 and Operating Permit P-62R2 for each combustion boiler. The present annual $SO_2$ emission limit for each unit in NSR Permit 0063-M6R1 is:

Unit 1 – 7045.8 tpy
Unit 2 – 7009.5 tpy
Unit 3 – 10944.4 tpy
Unit 4 – 10736.9 tpy

The present annual $SO_2$ emission limit for each unit in Operating Permit 062R2 is:

Unit 1 – 3159 tpy
Unit 2 – 3143 tpy
Unit 3 – 4907 tpy
Unit 4 – 4814 tpy

For this permit application, the calculations of the annual $SO_2$ emission limit are based on the proposed 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limitation, operating at

8760 hours per year, and the maximum heat input values. The proposed annual $SO_2$ emission limit for each combustion boiler unit is:

Unit 1 – 2435 tpy
Unit 2 – 2423 tpy
Unit 3 – 3783 tpy
Unit 4 – 3711 tpy

This equates to a facility-wide annual $SO_2$ emission limit reduction of 3670 tpy under previous permits.

Compliance with the annual $SO_2$ emission limitation is determined by calculating at the end of each year the arithmetic average of all hourly emission rates for $SO_2$, except for data obtained during emergency conditions. Hourly emission rates will only be determined based on valid $SO_2$ CEMs data for any hour where fuel is combusted in the unit. No missing hour substitute data will be used in determining compliance with the proposed annual $SO_2$ emission limit.

**Monitoring Requirement**

SJGS's NSR Permit 0063M6R1 presently has monitoring conditions in the permit that requires continuous emissions monitoring systems (CEMS) for measuring $SO_2$ emissions. This present system will be used to determine compliance with the proposed 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limit and annual $SO_2$ emission limit on a unit-specific basis using data from $SO_2$ CEMS that have been installed, calibrated, and operated in accordance with 40 CFR 75.

**Recordkeeping Requirement**

SJGS's NSR Permit 0063M6R1 presently has recordkeeping conditions in the permit that specifies recording requirements for continuous emissions monitoring systems (CEMS) data for measuring $SO_2$ emissions per 40 CFR 75. This present system will be used to record compliance with the proposed 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limit.

**Reporting Requirement**

SJGS's NSR Permit 0063M6R1 presently has reporting conditions in the permit that specifies reporting requirements for continuous emissions monitoring systems (CEMS) data for measuring $SO_2$ emissions per 40 CFR 75. This present system will be used to report compliance with the proposed 0.15 lb/MMBtu heat input 30-day rolling average $SO_2$ emission limit.

Final public notice documentation will be sent under a separate cover after receiving affidavits from newspaper publication. Please let me know if you have any questions or need additional information.

Sincerely,
Paul Wade

Paul Wade

Project Engineer
Class One Technical Services, Inc.

Cc: Mark Williams, PNM